

Appl. No. 10/792,045

Amdt. Dated Oct. 13, 2005

Reply to Office action of July 20, 2005

AMENDMENTS TO THE DRAWINGS

Following this page is a marked up Figure 3 which has been amended to label the crests 61 and valleys 62 of annular wave spring 60.

Attachment: Replacement Sheet

Annotated Sheet Showing Changes

REMARKS

The Office Action dated July 20, 2005 has been carefully reviewed and certain clarifying amendments have been made to the specification and claims in a sincere effort to place the above-identified application in a proper form for allowance. Such action is respectfully requested on the basis of the following discussion.

CLAIMS 1-2, 8, 10-12 AND 17-20

Claims 1-2, 8, 10-12 and 17-20 have been rejected under 35 U.S.C. 102(e) as being anticipated by Maglica'772. In pertinent part, Maglica teaches as follows:

The first conductor 39 is mounted within a recess 45 formed in the bottom of insulator 41. The first conductor 39 is a resilient spring conductor adapted to be compressible in the direction of arrow 36. Conductor 39 is configured so that when mounted within recess 45 it does not extend beyond sidewall 43 of the lower insulator 41. As a result, if batteries 31 are inserted backwards into barrel 21, so that their case electrodes are pointing forward, an electrical circuit is not formed. When the batteries are inserted correctly as shown in FIG. 3, however, the center electrode of the forwardmost battery is urged into contact with, and compresses, the first conductor 39. (col. 7, lines 49-60)

The first conductor 39 preferably comprises a leaf spring which allows limited travel of the batteries towards and away from the switch assembly without losing physical or electrical contact between the center electrode 38 of the forwardmost battery 31 and the first conductor 39. The spring action of conductor 39 provides a dampening effect that further helps to prevent damage to the center electrode 38 in the event the flashlight is dropped; it also helps to maintain electrical contact in such situations. (col 8, lines 6-14 – emphasis added)

Maglica '772 thus provides a spring 39 for making an electrical connection to the positive battery terminal. Applicants also provide a spring for such purpose. As described in the specification, "[t]he coil spring 74 has an end 76 which is adapted to make contact with a positive lead 152 of a battery cell 150 which is provided in the battery housing 100." The provision of a spring at this location and for this purpose is well known in the flashlight art.

Spring 39 of Maglica '772 clearly does not teach or in any way suggest the provision of a wave spring such as Applicants' wave spring 60.

First and perhaps most important, Maglica '772 teaches a kidney shaped leaf spring and does not in any way suggest a wave spring. As shown in Figure 3 of Applicants' Specification, a wave spring is an annular ring of metal which is formed to have alternating crests and valleys. Applicants submit for the Examiner's approval a corrected Figure 3 which labels the crests and valleys. Wave springs, which are sometimes referred to as "wave washers" are commercially available and are used in a variety of applications. They have not, however, to applicants knowledge ever been proposed for use in a flashlight as taught in the present application. Maglica does not teach, suggest or show any type or form of wave spring or wave washer.

Second, Maglica '772 does not teach or suggest any spring (wave or otherwise) which is physically positioned "between said electrically conducting battery chamber and said flashlight head" as required by claim 1. In Maglica '772, this location would be between the barrel 21 and the head 23 and would be generally found somewhere between sealing element 155 and lip 95 of

barrel 21 (see Figure 3). No spring of any kind is taught or suggested by Maglica at or near this location.

Finally, Maglica does not teach or suggest any spring which provides "multiple contact points" as now required by amended claim 1. The purpose of the wave spring in connection with the present invention is to provide a reliable connection to the negative battery terminal through the tubular battery chamber or housing 100. In the past, such connections were made by contact with the threaded engagement of the battery chamber to the flashlight head. Such a threaded engagement does not always provide a reliable electrical connection. The provision of the wave spring makes contact with a metal ring 50 at multiple contact points where the crests of the partially compressed wave spring press against the metal ring 50. At the same time, multiple contact points are similarly formed between the valleys and the battery chamber. Because the compressed wave spring desires to return to its pre-compressed shape, force is exerted by the crests and valleys of the wave spring making a very reliable connection.

In view of the foregoing, it is respectfully submitted that each of claims 1-2, 8, 10-12 and 17-20 are now in a proper form for allowance.

REJECTIONS UNDER 35 U.S.C. 103

The Examiner has also rejected claims 3-7, 9, and 20-21 as being unpatentable over Maglica '772 in view of Witte, Huang or Maglica '265. Applicants incorporate their argument stated above with respect to Maglica '772 and assert that each of these claims are also now in a proper form for allowance.

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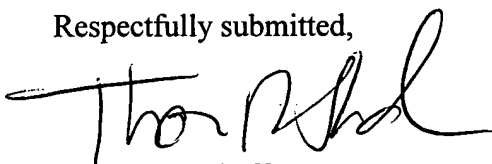
ALLOWABLE SUBJECT MATTER

Applicants acknowledge and wish to thank the Examiner for indicating that claims 13-16 contain allowable subject matter. Such claims have been objected to as being dependent upon a rejected base claim. Claim 13 has been rewritten in independent form including all limitations of original claim 1. Each of claims 13-16 are also now believed to be in a proper for allowance.

CONCLUSION

In view of the foregoing, it is respectfully submitted that claims 1-19 are now in a proper form for allowance. Such action is requested at an early date.

Respectfully submitted,



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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Non-Fee Amendment, Commissioner for Patents, PO Box 1450, Alexandria VA 22313-1450 on the date set forth below:

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Signature

Date of Signature and Mailing